

## MANUFACTURE OF FILM TRANSISTOR

## MANUFACTURE OF FILM TRANSISTOR

Patent Number: JP5160152  
Publication date: 1993-06-25  
Inventor(s): WATABE JUNICHI; others: 02  
Applicant(s): FUJITSU LTD  
Requested Patent: ☐ JP5160152

Application Number: JP19910320816 19911205

Priority Number(s):

IPC Classification: H01L21/336; H01L29/784; H01L21/203; H01L21/316

EC Classification:

EC Classification:

Equivalents:

### Abstract

**PURPOSE:** To form a gate insulating film high in closeness and large in breakdown strength and an operation semiconductor film excellent in closeness with the gate insulating film and excellent in film quality concerning the manufacture of a film transistor.

**CONSTITUTION:** In the manufacture of a film transistor which has a gate electrode 2, a gate insulating film 3, an operation semiconductor film 4, and a channel protective layer 5 stacked in order on an insulating substrate 1, and a source electrode 7a and a drain electrode 7b arranged on both sides of the channel protective layer 5, this is so constituted as to form the gate insulating film 3 by an atom layer epitaxy method, and subsequently form the operation semiconductor film 4 by atom layer epitaxy method. Moreover, at formation of the gate insulating film 3, this is so constituted as to grow a compound insulator by the atomic layer epitaxy method, which exposes the insulating substrate 1 several times alternately in alkyl amine alane atmosphere and atmosphere including oxygen, and form all or one part of the gate insulating film 3.